Title (en)

PSK DEMODULATOR WITH FEEDBACK CIRCUIT FOR CORRECTING PHASE AND FREQENCY ERRORS

Publication

EP 0533208 A3 19930804 (EN)

Application

EP 92116142 A 19920921

Priority

JP 23996891 A 19910919

Abstract (en)

[origin: EP0533208A2] In order to coherently demodulate an incoming multi-phase PSK analog signal irrespective of large frequency deviation, an automatic frequency feedback loop is provided. An analog baseband signal is generated by multiplying the IF analog signal by a local signal and then is converted into the corresponding digital baseband signal. A multiplier multiplies the digital baseband signal by another local signal. The output of the multiplier is further multiplied and then applied to a plurality of single-tuned filters which are arranged in parallel and have tuning frequencies each different from an adjacent frequency by a predetermined frequency interval. Each of the plurality of single-tuned filters generates a signal for use in carrier recovery, a frequency error signal and a correlation coefficient. Subsequently, one of the plurality of single-tuned filters is selected in a manner wherein the maximum value is detected among the correlation coefficients. The another local signal is generated using the frequency error signal of the single-tuned filter which has been selected. A modulating signal is reproduced using the recovered carrier in a conventional manner. <IMAGE>

IPC 1-7

H04L 27/22

IPC 8 full level

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CPC (source: EP US)

H04L 27/2332 (2013.01 - EP US); H04L 2027/003 (2013.01 - EP US); H04L 2027/0057 (2013.01 - EP US); H04L 2027/0081 (2013.01 - EP US)

Citation (search report)

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